

REMARKS

Claims 1-20 are pending herein.

I. The claim rejections based on Young (US 6,561,640) in view of Mitani (US 5,666,140).

The USPTO respectfully rejects Claims 1-20 under 35 U.S.C. § 103(a) as being obvious over Young in view of Mitani.

The independent claims, 1, 8, and 15 have been amended. The amendments are supported at least by the figures as described below.

As claimed in the amended claims, a main feature of the ink jet printer according to the claims is to provide a plurality of pairs each including a recording head and an irradiating device, that is, a head, an irradiating device, a head, an irradiating device, ...arranged in this order; and to set the ray quantity of the irradiating device arranged on the most downstream side in the feeding direction of the recording medium, to be larger than that of each of other irradiating devices.

Referring to Fig. 2, a black-ink head and irradiating device (a first pair), a cyan-ink head and irradiating device (a second pair), a magenta-ink head and irradiating device (a third pair), and a yellow-ink head and irradiating device (a fourth pair) are alternately arranged with four pairs of heads and irradiating devices in the feeding direction of the recording medium. The irradiating device is disposed on the downstream side of the yellow-ink head is the device positioned on the most downstream side in the feeding direction of the recording medium, and the irradiating device is so designed as to irradiate larger quantity or intensity of rays than that of each of the other irradiating devices.

Regarding the black ink, for example, ejected black ink is irradiated with UV rays by the irradiating device disposed on the downstream side of the black-ink head, and thereafter also irradiated by the irradiating devices for cyan, magenta and yellow disposed on the downstream side thereof, and therefore the black ink is completely cured. On the other hand, ejected yellow ink is irradiated with UV rays only by one irradiating device disposed on the downstream side of the yellow-ink head, and therefore it is necessitated to irradiate enough quantity of UV rays to completely cure the yellow ink. Accordingly, it is necessary for the

irradiating device positioned for the ink on the most downstream side to irradiate larger intensity of UV rays than that of the other devices for maintaining curability of the ink.

Young discloses two times of curing of substance (ink) by ultraviolet light, in which one is partial curing (preliminary curing), and the other is complete curing (main curing) applied after the substance is partially cured. However, Young does not describe that a quantity or intensity of UV rays for the main curing is larger than that for the preliminary curing.

Further, Young does not teach nor suggest a structure in which the system has a plurality of pairs of a recording head and an irradiating device as claimed in the present invention.

In the present claims, the provision of a plurality of irradiating devices is not for the preliminary curing and the main curing, but for the main curing. That is, as shown in Fig. 2, the irradiating device disposed on the downstream side of the yellow-ink head irradiates the jetted yellow-ink only one time with necessary quantity of UV rays for complete curing to achieve substantially the same curing as for the ink previously jetted from heads disposed on the upstream side of the yellow-ink head.

As described above, Applicant respectfully asserts as follows: Because the ink jet printer of the invention includes a plurality of pairs of a recording head and an irradiating device, a quantity or intensity of UV rays emitted from the irradiating device disposed on the most downstream side in the feeding direction has to be larger than that of each of other irradiating devices. Young never teaches nor suggests such a concept.

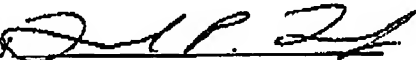
II. Conclusion.

Reconsideration and allowance of all of the claims is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicants seek to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

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